

City Of Wheeling, West Virginia Policemen's Pension and Relief Fund

Actuarial Valuation Report
for the Year Beginning July 1, 2017



September 14, 2018

Mr. Seth D. McIntyre
Finance Director
1500 Chapline Street, Rm 115
Wheeling, WV 26003

Retiree Mark W. Garrett
Pension Board Secretary
City of Wheeling Policemen's Pension and Relief Fund

**Subject: City of Wheeling Policemen's Pension and Relief Fund
Actuarial Valuation Report for the Year Beginning July 1, 2017**

Dear Mr. McIntyre and Retiree Garrett:

Upon the request of the Municipal Pensions Oversight Board, we have performed an actuarial valuation as of July 1, 2017, for the City of Wheeling, West Virginia Policemen's Pension and Relief Fund ("Fund" or "Plan"). This actuarial valuation has been performed in accordance with the West Virginia Code Chapter 8, Article 22, Sections 16 through 28, inclusive.

In accordance with West Virginia Code §8-22-20, this actuarial valuation report provides information on:

- The sponsor's funding requirements for the fiscal year ending June 30, 2019
- The Fund's eligibility to receive an allocation of the premium tax for the fiscal year ending June 30, 2019
- The Fund's eligibility to provide supplemental benefits for the plan year beginning July 1, 2019

West Virginia Code §8-22-20(c)(4) requires a review of the actuarial assumptions and methods at least once every five years and that the Actuary shall provide a report to the oversight board with recommendations on any changes to the actuarial process. Consequently, an experience review was performed for the period July 1, 2009, through June 30, 2014. The actuarial assumptions and methods were recommended by the actuary, in the report *2016 Experience Review for the Years July 1, 2009, to July 1, 2014*, approved by the Municipal Pensions Oversight Board, and became effective for the actuarial valuation as of July 1, 2015.

This report is based on the sponsor's election to finance benefit obligations using the Optional funding policy as defined in West Virginia Code §8-22-20 (e)(1).

This actuarial valuation is based upon:

Plan Member Data – Data for active members and persons receiving benefits from the Fund as of June 30, 2017, was provided by the Fund's staff. We have tested this data for reasonableness.

Asset Values – A reconciliation of market value of assets during the plan year ended June 30, 2017, and assets held as of June 30, 2017, by investment category, was provided by the Fund.

Plan Provisions – A summary of the key plan provisions valued are set forth in Section VI of the report: Summary of Principal Plan Provisions.

Actuarial Methods – Fund liabilities were measured using the Entry-Age Normal Actuarial Cost Method. The actuarial valuation was based on the market value of assets. The actuarial methods used in the actuarial valuation are set forth in Section V of the report: Actuarial Assumptions and Methods.

Actuarial Assumptions – The actuarial assumptions used include a discount rate of 5.50%. The actuarial assumptions used in the actuarial valuation are set forth in Section V of the report: Actuarial Assumptions and Methods.

The actuarial valuation results disclosed in this report are based on the data and actuarial assumptions and methods described above, and upon the provisions of the Plan as of the actuarial valuation date. Based on these items, we certify these results to be true and correct.

To the best of our knowledge, this actuarial statement is complete and accurate, and has been prepared in accordance with generally accepted actuarial principles and practices.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purpose stated.

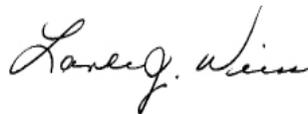
The signing actuaries are independent of the plan sponsor.

Alex Rivera and Lance J. Weiss are members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Sincerely,



Alex Rivera, FSA, EA, MAAA, FCA
Senior Consultant



Lance Weiss, EA, MAAA, FCA
Senior Consultant



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SECTION I

ACTUARIAL VALUATION RESULTS AS OF JULY 1, 2017

Executive Summary of Valuation Results as of July 1, 2017

Upon the request of the Municipal Pensions Oversight Board, we have performed an actuarial valuation as of July 1, 2017, for the City of Wheeling, West Virginia Policemen's Pension and Relief Fund ("Fund" or "Plan").

In accordance with West Virginia Code §8-22-20, this actuarial valuation report provides information on:

- The sponsor's funding requirements for the fiscal year ending June 30, 2019
- The Fund's eligibility to receive an allocation of the premium tax for the fiscal year ending June 30, 2019
- The Fund's eligibility to provide supplemental benefits for the plan year beginning July 1, 2019

This report is based on the sponsor's election to finance benefit obligations using the Optional funding policy as defined in West Virginia Code §8-22-20 (e)(1). The sponsor changed the funding policy used to determine contributions from the Alternative funding policy to the Optional funding policy, effective December 1, 2014.

The key features of the Optional funding policy, effective for plan years beginning after January 1, 2010, are summarized below:

- The current local Plan is closed to new employees
- New employees are covered in the multiple employer statewide plan – *Municipal Police Officers and Firefighters Retirement System*
- Benefits and expenses in the closed local Plan are financed by contributions made from the following sources:
 - Employee contributions of 7.0% of pay for members hired before January 1, 2010, increased by up to 2.5% of pay if elected by the Board of Trustees of the Plan. Employees hired on or after January 1, 2010, contribute 9.5% of pay;
 - The premium tax allocation assigned to the Fund for the plan year; and
 - Employer contributions equal to the normal cost, net of employee contributions, plus a 40-year closed period amortization from January 1, 2010, on a level dollar basis, of the unfunded actuarial accrued liability net of premium tax allocation applicable to the plan year.

Executive Summary of Valuation Results as of July 1, 2017 (Continued)

The following table provides the Plan's funded status:

Funded Status as of:	July 1, 2017
Assets	\$22,535,606
Actuarial Accrued Liability	\$55,506,409
Unfunded Actuarial Accrued Liability	\$32,970,803
Funded Ratio	40.60%

The following table provides the estimated employer contributions for the fiscal year ended June 30, 2018, under the Optional funding policy, based on the July 1, 2016 actuarial valuation produced by GRS:

Employer Contributions for FYE:	June 30, 2018
Estimated Payroll for PYE 06/30/2017	\$2,754,033
Employer Normal Cost for PYE 06/30/2017	\$872,614
Employer Normal Cost Rate for PYE 06/30/2017	31.7%
Amortization of Unfunded Actuarial Liability for PYE 06/30/2017	\$2,275,750
State Insurance Premium Tax Allocation for FYE 06/30/2018	\$764,859
Employer Contribution for FYE 06/30/2018	\$2,383,505

The following table provides the estimated employer contributions for the fiscal year ended June 30, 2019, under the Optional funding policy, based on the July 1, 2017 actuarial valuation produced by GRS:

Estimated Employer Contributions for FYE:	June 30, 2019
Estimated Payroll for PYE 06/30/2018	\$2,505,036
Employer Normal Cost for Active Members for PYE 06/30/2018	\$799,284
Employer Normal Cost Rate for PYE 06/30/2018	31.9%
Amortization of Unfunded Actuarial Liability for PYE 06/30/2018	\$2,141,308
State Insurance Premium Tax Allocation for FYE 06/30/2019	\$791,415
Estimated Employer Contribution for FYE 06/30/2019 ^a	\$2,149,177

^a The Employer Contribution cannot be less than the Employer Normal Cost.

The actual minimum employer contribution for fiscal year ending June 30, 2019, will be based on the actual payroll for the plan year ended June 30, 2018.

Executive Summary of Valuation Results as of July 1, 2017 (Continued)

Commentary on Premium Tax Allocation

Under §8-22-19 of the West Virginia Code, the plan sponsor is required to deposit the statutory contribution on a monthly basis at a rate of one-twelfth of the annual requirement, in order to receive the premium tax allocation from the Municipal Pensions Security Fund. Revenues which are specifically collected for the Fund, including employee payroll contributions, must be deposited within five days of receipt.

Based upon discussions with the Municipal Pensions Oversight Board (MPOB), we understand the annual premium tax allocation is determined by September 1st each year. Municipalities can begin invoicing the MPOB for their share of the premium tax allocation after receiving their state provided actuarial study and after the municipality has made employer contributions to the local Plan. Each municipal treasurer shall use the invoice template provided by the MPOB to begin drawing down the state allocation for the municipal pension plan. This July 1, 2017, Actuarial Report from GRS is to be used by municipal pension plans to draw down the September 1, 2018, State Premium Tax Allocation which is allocated in Fiscal Year 2019. The actuarial valuation and projection results assume the sponsor will make the statutory contributions on a monthly basis in accordance with statutes, and will be eligible to receive the premium tax allocation.

Commentary on Solvency Projections and Supplemental Benefits

Under § 8-22-26a of the West Virginia Code, all retirees, surviving spouses and disabled pensioners are eligible for Supplemental Benefits that include automatic cost-of-living benefits commencing on the first day of July following two years of retirement. The benefit equals the percentage increase in the Consumer Price Index, limited to 4.0 percent (2.0 percent for certain disabled pensioners), multiplied by the sum of the allowable amount (first \$15,000 of initial benefits paid) and the accumulated supplemental pensions paid in prior years.

The Court of Appeals decision requires that Supplemental Benefits be provided on “the allowable amount of the first \$15,000 of the total annual pension paid in addition to the accumulated supplemental pension from the previous years.” The decision implies that compound cost-of-living increases should be applied to both the allowable amount of \$15,000 and the accumulated supplemental pension amounts for prior years. Additional Supplemental Benefits are payable only if the Plan satisfies the minimum standard for actuarial soundness as defined in West Virginia Code § 8-22-20. This minimum standard requires that the fund remain “solvent” over the next 15-year projection period. Based on discussions with the West Virginia Municipal Pensions Oversight Board, and our understanding of the administrative practices of other local police and fire pension funds in West Virginia, the “solvency” requirement generally means that the fund’s market value of assets is projected to be greater than zero for all plan years prior to the end of the 15-year projection period. The projection is based on the most recent actuarial valuation and assumes the plan sponsor will make contributions according to the funding policy elected by the sponsor as defined by West Virginia Code, including any additional amounts needed to satisfy the 15-year solvency test on a closed group projection basis. Although the 15-year solvency test may satisfy the minimum standard for actuarial soundness under the statutes, it is not necessarily consistent with generally accepted actuarial principles.

Executive Summary of Valuation Results as of July 1, 2017 (Continued)

The City of Wheeling has elected to fund benefits using the Optional funding policy as defined in West Virginia Code §8-22-20 (e)(1). Under this funding methodology, the fund's market value of assets is projected to be greater than zero for all plan years prior to the end of the 15-year projection period. Accordingly, this contribution methodology satisfies the minimum standard for actuarial soundness.

The Supplemental benefits for plan year beginning July 1, 2019, will be based on the Consumer Price Index for calendar year 2018, and the projected results of the July 1, 2017, actuarial valuation.

Additional Remarks on the Actuarial Valuation Results

Following are additional remarks on the actuarial valuation results as of July 1, 2017:

- The actuarial assumptions and methods were recommended by the actuary, in the report *2016 Experience Review for the Years July 1, 2009, to July 1, 2014*, and approved by the Municipal Pensions Oversight Board and became effective beginning with the actuarial valuation as of July 1, 2015. The key assumptions are fully disclosed in Section V of the report.
- The interest rate used to discount liabilities remained the same for the July 1, 2016 and July 1, 2017 actuarial valuations.
 - The interest rate assumption was developed by reviewing the Plan's current funded ratio, the 15-year projected funded ratio, the ratio of assets to benefits, the percentage of assets allocated to equities and the funding policy selected. The details of the methodology used to select the discount rate are presented in Section V of the report. As of July 1, 2017, the Plan's funded ratio of 43% (using a testing interest rate of 6.00% for all plans using the Optional funding policy), ratio of assets to benefits of 7.70, equity allocation of 57%, and 15-year projected funded ratio of 66%, resulted in a discount rate assumption of 5.50%.
- The Fund experienced an approximate annualized return of 11.01% on the market value of assets during the plan year ended June 30, 2017, which compares to the expected annualized return of 5.50%. The difference in actual versus expected return produced an asset (gain)/loss of (\$1,106,172).
- An actuarial valuation is based on the expectation of certain events such as salary increases, retirement, disability, mortality, termination and cost of living increases. Demographic or liability experience (gains)/losses are generated when the actual occurrence of such events differs from the expectation. During the plan year ended June 30, 2017, the fund experienced a net liability (gain)/loss of (\$999,804) due to these events.

Executive Summary of Valuation Results as of July 1, 2017 (Continued)

Optional Funding

Following are additional remarks on the actuarial valuation projections under the current funding policy:

Based on the closed group projections shown in Table 1, page II-1 and assuming that the sponsor makes the statutory required contributions, if all actuarial assumptions are realized in the future, including an investment return of 5.50%:

- The funded ratio is projected to increase from 41% at June 30, 2017, to 62% at June 30, 2030, to 76% at June 30, 2040, and 100% at June 30, 2050.
- Employer contributions are expected to decrease steadily from \$2,149,177 for the fiscal year end June 30, 2019, to \$421,729 for fiscal year end June 30, 2049.

Please note that a funded ratio of only 41% at June 30, 2017, means that the Plan is underfunded.

This actuarial valuation assumes that the City will be able to make future contributions on a timely basis. The ability of the Plan to become fully funded is heavily dependent on the City contributing the minimum employer contribution calculated under the Optional funding policy for each and every future year. We did not perform an analysis of the ability of the City to make future contributions. Such an analysis is not within the scope of our assignment or within our analytical skill set. Failure to receive City contributions on a timely basis could jeopardize the sustainability of the Plan.

Please understand that the minimum employer contribution calculated under the Optional funding policy as defined in West Virginia Code §8-22-20 (e)(1) is just that – the minimum that needs to be contributed each and every year. Because this is a underfunded Plan, we recommend that the plan sponsor consider making additional contributions (in excess of the minimum requirement) to ensure that there are sufficient assets available in the fund in all years to pay the promised benefits.

If the minimum employer contributions (calculated under the Optional funding policy) are not made or the investment return is less than the assumption of 5.50%, the funded ratio will be lower and the cash flow strain will be higher. If another significant market downturn occurs while the plan's funded ratio is low, the plan may need to liquidate a large amount of assets in order to pay benefits which could have a further adverse effect on the funded status of the Plan.

Under the Optional funding policy, the following experience could cause City contributions to change during the year:

- If the actual return on assets is *less* than the assumed return of 5.50%, then contributions will generally *increase*. Conversely, if the actual return is *greater* than the assumed return, contributions will generally *decrease*.
- If salaries *increase* by more than assumed, contributions could *increase*. If salaries *decrease* by more than assumed, contributions could *decrease*.
- If active members retire *sooner* than expected, contributions will generally *increase*. If active members retire *later* than expected, contributions will generally *decrease*.

Executive Summary of Valuation Results as of July 1, 2017 (Continued)

- If active members become disabled during the year, contributions could increase.
- If retired members die *later* than expected, contributions will increase. If retired members die *sooner* than expected, contributions will decrease.
- If the general inflation is *greater* than assumed, supplemental benefits will be greater than assumed and contributions will *increase*. Conversely, if general inflation is *lower* than assumed, contributions will *decrease*.

At least once every five years, GRS performs an experience review analysis and updates the actuarial valuation assumptions. For example, if salary increases were consistently lower than assumed during the experience period, then the salary increase rate would likely be lowered. Or if more members retired than assumed, then the retirement rates would likely be increased. Any change in actuarial assumption will also impact the City's funded ratio. The objective of a change in assumptions is to reduce the level of experience gains and losses in future actuarial valuations.

Schedule A: Summary of Key Valuation Results

Valuation Date	July 1, 2016	July 1, 2017
Valuation Interest Rate	5.50%	5.50%
Cost-of-Living Adjustment	2.75%	2.75%
Wage Inflation	3.75%	3.75%
Expected Payroll	\$2,754,033	\$2,505,036
Average Pay	\$47,483	\$50,101
Expected Benefit Payments	\$2,849,026	\$2,928,220
1. Actuarial Accrued Liability	<u>No.</u>	<u>No.</u>
(a) Actives	58	50
(b) Retirees	72	70
(c) Survivors	28	30
(d) Disabled Members	7	7
(e) Deferred Vested Members	0	1
(f) Total	165	158
	\$16,404,206	\$15,148,096
	\$32,620,659	\$33,461,752
	\$3,826,160	\$4,021,787
	\$2,413,347	\$2,436,441
	\$0	\$438,333
	\$55,264,372	\$55,506,409
2. Present Value of Future Normal Costs	\$10,763,637	\$9,888,342
3. Present Value of Benefits (1(f) + 2)	\$66,028,009	\$65,394,751
4. Market Value of Assets	\$19,834,631	\$22,535,606
5. Unfunded Actuarial Accrued Liability (1(f) - 4)	\$35,429,741	\$32,970,803
6. Funded Ratio (4 / 1(f))	35.89%	40.60%
7. Net Employer Normal Cost		
(a) Normal Cost	\$1,070,815	\$977,353
(b) Administrative Expenses	\$10,457	\$13,448
(c) Gross Normal Cost (a + b)	\$1,081,272	\$990,801
(d) Employee Contribution Rate ^a	7.58%	7.65%
(e) Expected Employee Contributions	\$208,658	\$191,517
(f) Net Employer Normal Cost (c - e)	\$872,614	\$799,284
(% of Compensation)	31.68%	31.91%
8. Estimated Minimum Employer Contribution ^b	<u>FYE 2018</u>	<u>FYE 2019</u>
(a) Expected Payroll	\$2,754,033	\$2,505,036
(b) Estimated Employer Normal Cost	\$872,614	\$799,284
(c) Employer Normal Cost Rate	31.68%	31.91%
(d) Amortization of Unfunded Actuarial Liability	\$2,275,750	\$2,141,308
(e) State Insurance Premium Tax Allocation	\$764,859	\$791,415
(f) Estimated Employer Contribution ^c (b + d - e)	\$2,383,505	\$2,149,177

^a Blended rate reflecting 7.0% for members hired before January 1, 2010, and 9.5% for members hired after January 1, 2010.

^b Estimated Minimum Employer Contribution is based on Optional funding policy and is assumed to be made in plan year ending June 30, 2019. The actual Minimum Employer Contribution will be based on actual payroll for plan year ended June 30, 2018.

^c The Employer Contribution cannot be less than the Employer Normal Cost.

Schedule B: (Gain)/Loss Analysis

Experience (Gain)/Loss for Plan Year Ended June 30, 2017

1. (a) Actuarial Accrued Liability as of 7/1/2016	\$55,264,372
(b) Normal Cost due 7/1/2016	\$1,070,815
(c) Interest on (a) and (b) to 6/30/2017	\$3,068,988
(d) Benefit Payments with interest to 6/30/2017	\$2,897,962
(e) Effect of Assumption Changes	\$0
(f) Expected Liability at 7/1/2017 [(a) + (b) + (c) - (d) + (e)]	\$56,506,213
(g) Actual Liability at 7/1/2017	\$55,506,409
(h) Liability (Gain)/Loss [(g) - (f)]	(\$999,804)
2. (a) Market Value of Assets as of 7/1/2016	\$19,834,631
(b) Interest on (a) to 6/30/2017	\$1,090,905
(c) Contributions with interest to 6/30/2017	\$3,401,860
(d) Benefit Payments with interest to 6/30/2017	\$2,897,962
(e) Expected Assets at 6/30/2017 [(a) + (b) + (c) - (d)]	\$21,429,434
(f) Actual Assets at 7/1/2017	\$22,535,606
(g) Asset (Gain)/Loss [(e) - (f)]	(\$1,106,172)
3. Total (Gain)/Loss [1(h) + 2(g)]	(\$2,105,976)

SECTION II

ACTUARIAL PROJECTIONS

Actuarial Projections, Table 1

Valuation Plan	Total Assets															
	Number		Assets					Employer		Employee		Premium Tax		Actuarial	Unfunded	Funded
	Year End	Pay	Assets	Benefit	Expenses	Contributions	Contributions	Allocation	Investment	Assets	Accrued	Liability	Liability			
30-Jun	Active	Status	(bo)	Payments					Income	(eo)						
2017	50	108	\$19,834,631	\$2,820,401	\$13,088	\$2,330,579	\$213,131	\$767,103	\$2,223,651	\$22,535,606	\$55,506,409	\$32,970,803	41%			
2018	44	110	22,535,606	2,928,220	13,448	2,383,505	191,517	764,859	1,250,263	24,184,082	56,556,959	32,372,877	43%			
2019	41	110	24,184,082	2,982,594	13,500	2,149,177	182,536	791,415	1,333,571	25,644,687	57,543,722	31,899,035	45%			
2020	39	109	25,644,687	3,035,840	13,570	2,050,310	180,535	822,749	1,410,571	27,059,442	58,512,446	31,453,004	46%			
2021	36	109	27,059,442	3,086,423	13,654	2,013,473	179,254	839,970	1,486,442	28,478,503	59,468,817	30,990,314	48%			
2022	33	109	28,478,503	3,160,274	13,750	1,981,919	176,179	858,329	1,562,041	29,882,948	60,377,532	30,494,584	49%			
2023	32	108	29,882,948	3,222,781	13,848	1,940,596	174,210	877,971	1,636,946	31,276,042	61,254,939	29,978,897	51%			
2024	30	107	31,276,042	3,280,826	13,948	1,906,703	174,171	895,831	1,711,553	32,669,525	62,115,201	29,445,676	53%			
2025	28	106	32,669,525	3,349,043	14,053	1,881,647	172,763	914,285	1,786,123	34,061,247	62,938,840	28,877,593	54%			
2026	26	105	34,061,247	3,407,659	14,158	1,848,992	170,952	934,427	1,860,686	35,454,486	63,731,867	28,277,381	56%			
2027	24	105	35,454,486	3,473,971	14,268	1,814,615	168,664	954,468	1,935,061	36,839,055	64,482,439	27,643,384	57%			
2028	22	104	36,839,055	3,546,782	14,381	1,776,311	165,428	976,599	2,008,707	38,204,937	65,176,047	26,971,110	59%			
2029	20	104	38,204,937	3,616,717	14,495	1,732,910	161,899	999,259	2,081,271	39,549,065	65,809,533	26,260,468	60%			
2030	19	103	39,549,065	3,676,927	14,604	1,686,131	158,499	1,022,204	2,152,823	40,877,191	66,390,605	25,513,414	62%			
2031	17	102	40,877,191	3,731,436	14,715	1,640,127	155,974	1,045,032	2,223,691	42,195,864	66,928,704	24,732,840	63%			
2032	16	101	42,195,864	3,794,615	14,823	1,599,393	152,081	1,068,041	2,293,914	43,499,855	67,406,182	23,906,327	65%			
2033	14	101	43,499,855	3,906,418	14,931	1,551,513	143,526	1,093,700	2,361,762	44,729,008	67,748,438	23,019,430	66%			
2034	11	101	44,729,008	4,056,381	15,032	1,484,235	129,119	1,122,198	2,423,851	45,816,997	67,881,337	22,064,340	67%			
2035	9	101	45,816,997	4,203,093	15,132	1,389,891	112,309	1,155,245	2,477,588	46,733,806	67,786,916	21,053,110	69%			
2036	7	100	46,733,806	4,335,945	15,223	1,287,046	96,443	1,187,286	2,522,053	47,475,466	67,471,945	19,996,479	70%			
2037	6	100	47,475,466	4,460,497	15,306	1,186,696	81,999	1,219,575	2,557,225	48,045,157	66,940,526	18,895,369	72%			
2038	4	98	48,045,157	4,551,969	15,380	1,092,451	69,623	1,251,764	2,584,054	48,475,701	66,228,581	17,752,880	73%			
2039	3	97	48,475,701	4,614,834	15,443	1,010,280	59,214	1,283,534	2,604,377	48,802,829	65,366,118	16,563,289	75%			
2040	2	96	48,802,829	4,696,592	15,495	936,869	46,153	1,315,855	2,618,681	49,008,300	64,318,298	15,309,998	76%			
2041	2	94	49,008,300	4,761,758	15,535	857,361	33,682	1,350,697	2,626,662	49,099,410	63,096,215	13,996,805	78%			
2042	1	92	49,099,410	4,787,071	15,562	782,341	24,606	1,383,678	2,629,599	49,117,001	61,744,822	12,627,821	80%			
2043	1	90	49,117,001	4,796,674	15,574	716,434	16,649	1,417,218	2,629,211	49,084,265	60,278,139	11,193,874	81%			
2044	0	87	49,084,265	4,775,308	15,571	655,506	11,405	1,450,458	2,627,097	49,037,852	58,731,903	9,694,051	83%			
2045	0	85	49,037,852	4,736,010	15,550	602,096	7,685	1,483,655	2,624,962	49,004,690	57,126,377	8,121,687	86%			
2046	0	83	49,004,690	4,682,630	15,512	553,258	5,105	1,517,591	2,624,113	49,006,616	55,477,375	6,470,759	88%			
2047	0	80	49,006,616	4,618,395	15,453	508,002	3,303	1,551,854	2,625,616	49,061,543	53,796,829	4,735,286	91%			
2048	0	77	49,061,543	4,544,627	15,374	464,250	2,096	1,587,146	2,630,378	49,185,412	52,095,202	2,909,790	94%			
2049	0	75	49,185,412	4,463,417	15,274	421,729	1,290	1,622,778	2,639,189	49,391,708	50,380,501	988,793	98%			
2050	0	72	49,391,708	4,377,157	15,151	18,444	629	1,013,853	2,625,397	48,657,723	48,657,723	0	100%			
2051	0	69	48,657,723	4,285,162	15,006	15,565	236	0	2,559,932	46,933,288	46,933,288	0	100%			
2052	0	67	46,933,288	4,187,982	14,840	15,066	96	0	2,467,712	45,213,340	45,213,340	0	100%			
2053	0	64	45,213,340	4,087,526	14,652	14,652	0	0	2,375,831	43,501,645	43,501,645	0	100%			
2054	0	61	43,501,645	3,983,828	14,444	14,444	0	0	2,284,502	41,802,319	41,802,319	0	100%			
2055	0	59	41,802,319	3,878,035	14,217	14,217	0	0	2,193,909	40,118,193	40,118,193	0	100%			
2056	0	56	40,118,193	3,770,612	13,971	13,971	0	0	2,104,197	38,451,778	38,451,778	0	100%			
2057	0	53	38,451,778	3,662,009	13,710	13,710	0	0	2,015,490	36,805,259	36,805,259	0	100%			
2058	0	51	36,805,259	3,552,695	13,435	13,435	0	0	1,927,898	35,180,462	35,180,462	0	100%			

Actuarial Projections, Table 2

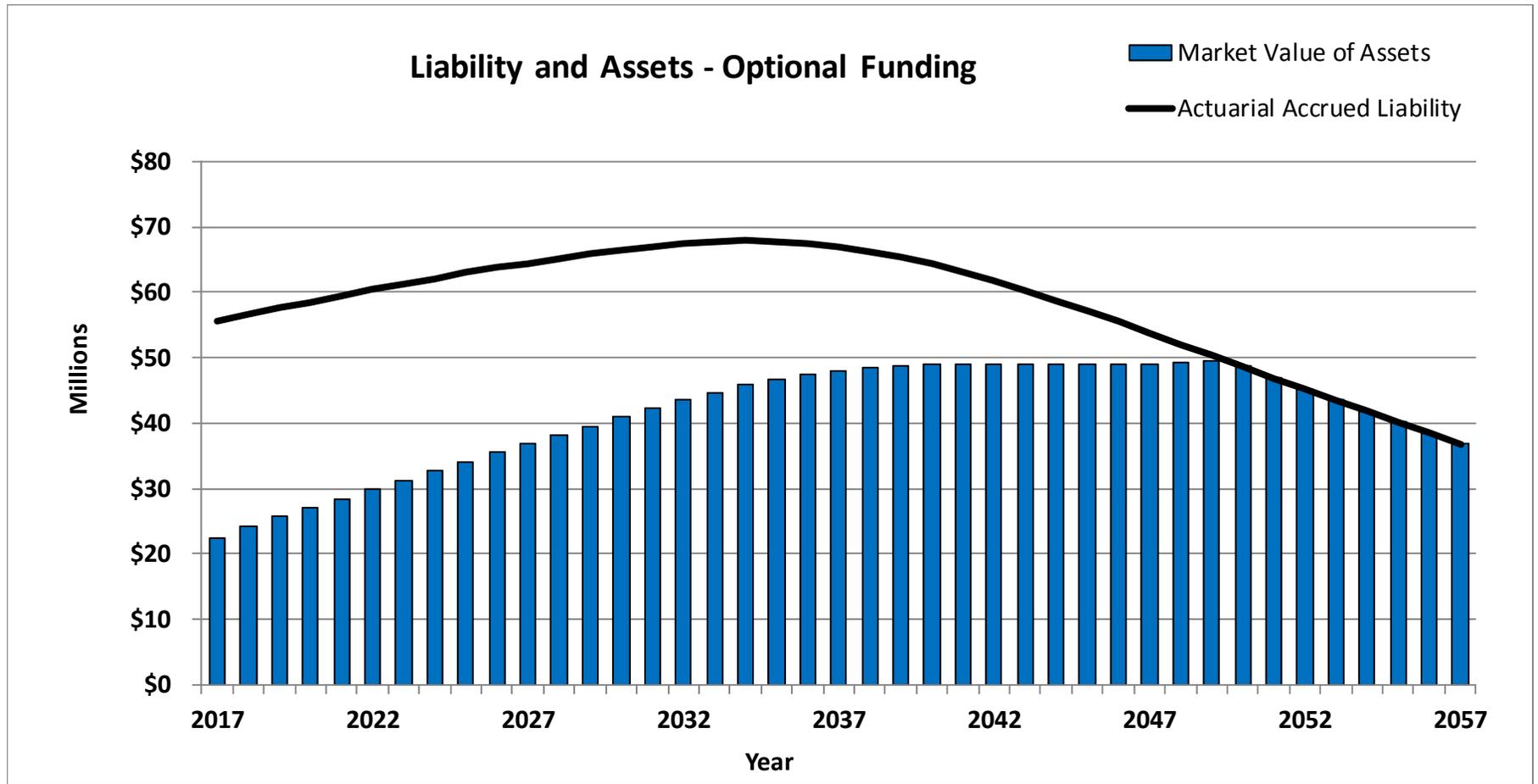
Employer Contributions

Valuation Plan Year End 30-Jun ^a	Closed Group Payroll	Active Employee Contributions	Employer Contributions			Premium Tax			Employer Contribution Closed Plan
			Gross Normal Cost	Net Employer Normal Cost	Amortization of UAAL	Allocation Contributions	Net Employer Amortization	Expenses	
2018	\$2,505,036	\$191,517	977,353	785,836	\$2,141,308	\$791,415	\$1,349,893	\$13,448	2,149,177
2019	2,375,626	182,536	914,713	732,177	2,127,382	822,749	1,304,633	13,500	2,050,310
2020	2,344,833	180,535	897,634	717,099	2,122,774	839,970	1,282,804	13,570	2,013,473
2021	2,323,378	179,254	884,430	705,176	2,121,418	858,329	1,263,089	13,654	1,981,919
2022	2,275,569	176,179	860,511	684,332	2,120,485	877,971	1,242,514	13,750	1,940,596
2023	2,243,176	174,210	843,952	669,742	2,118,944	895,831	1,223,113	13,848	1,906,703
2024	2,237,917	174,171	838,374	664,203	2,117,781	914,285	1,203,496	13,948	1,881,647
2025	2,212,364	172,763	824,837	652,074	2,117,291	934,427	1,182,864	14,053	1,848,992
2026	2,180,182	170,952	809,528	638,576	2,116,349	954,468	1,161,881	14,158	1,814,615
2027	2,140,278	168,664	792,058	623,394	2,115,248	976,599	1,138,649	14,268	1,776,311
2028	2,086,230	165,428	769,238	603,810	2,113,978	999,259	1,114,719	14,381	1,732,910
2029	2,027,673	161,899	743,431	581,532	2,112,308	1,022,204	1,090,104	14,495	1,686,131
2030	1,970,705	158,499	718,710	560,211	2,110,344	1,045,032	1,065,312	14,604	1,640,127
2031	1,926,112	155,974	700,314	544,340	2,108,379	1,068,041	1,040,338	14,715	1,599,393
2032	1,861,837	152,081	675,645	523,564	2,106,826	1,093,700	1,013,126	14,823	1,551,513
2033	1,737,082	143,526	630,212	486,686	2,104,816	1,122,198	982,618	14,931	1,484,235
2034	1,542,863	129,119	558,042	428,923	2,101,181	1,155,245	945,936	15,032	1,389,891
2035	1,331,674	112,309	476,307	363,998	2,095,202	1,187,286	907,916	15,132	1,287,046
2036	1,131,801	96,443	399,500	303,057	2,087,990	1,219,575	868,415	15,223	1,186,696
2037	943,386	81,999	330,193	248,194	2,080,715	1,251,764	828,951	15,306	1,092,451
2038	788,743	69,623	274,338	204,715	2,073,719	1,283,534	790,185	15,380	1,010,280
2039	663,075	59,214	228,803	169,589	2,067,692	1,315,855	751,837	15,443	936,869
2040	513,702	46,153	176,280	130,127	2,062,436	1,350,697	711,739	15,495	857,361
2041	373,872	33,682	127,891	94,209	2,056,275	1,383,678	672,597	15,535	782,341
2042	271,958	24,606	92,745	68,139	2,049,951	1,417,218	632,733	15,562	716,434
2043	183,214	16,649	62,470	45,821	2,044,569	1,450,458	594,111	15,574	655,506
2044	124,450	11,405	42,196	30,791	2,039,389	1,483,655	555,734	15,571	602,096
2045	83,382	7,685	27,954	20,269	2,035,030	1,517,591	517,439	15,550	553,258
2046	54,977	5,105	18,244	13,139	2,031,205	1,551,854	479,351	15,512	508,002
2047	35,010	3,303	11,584	8,281	2,027,662	1,587,146	440,516	15,453	464,250
2048	22,060	2,096	7,281	5,185	2,023,948	1,622,778	401,170	15,374	421,729
2049	13,583	1,290	4,460	3,170	2,019,040	1,013,853	360,056	15,274	18,444 ^b
2050	6,624	629	2,152	1,523	0	0	0	15,151	15,565 ^b
2051	2,487	236	796	560	0	0	0	15,006	15,066 ^b
2052	1,009	96	324	228	0	0	0	14,840	14,652 ^b
2053	0	0	0	0	0	0	0	14,652	14,444 ^b
2054	0	0	0	0	0	0	0	14,444	14,217 ^b
2055	0	0	0	0	0	0	0	14,217	13,971 ^b
2056	0	0	0	0	0	0	0	13,971	13,710 ^b
2057	0	0	0	0	0	0	0	13,710	13,435 ^b

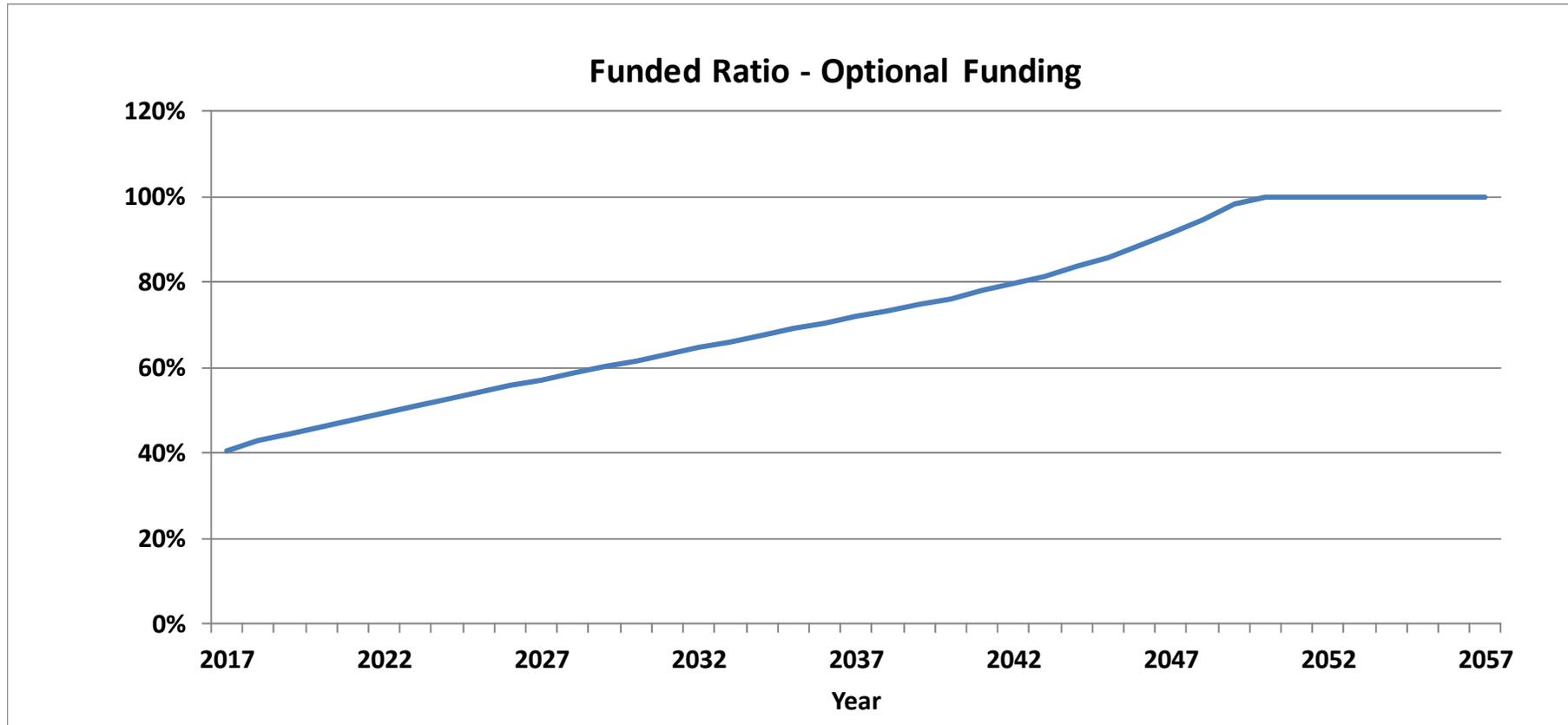
^a Assumes employer makes contributions for the applicable valuation plan year in the following fiscal year.

^b Amount required to remain at 100% funded.

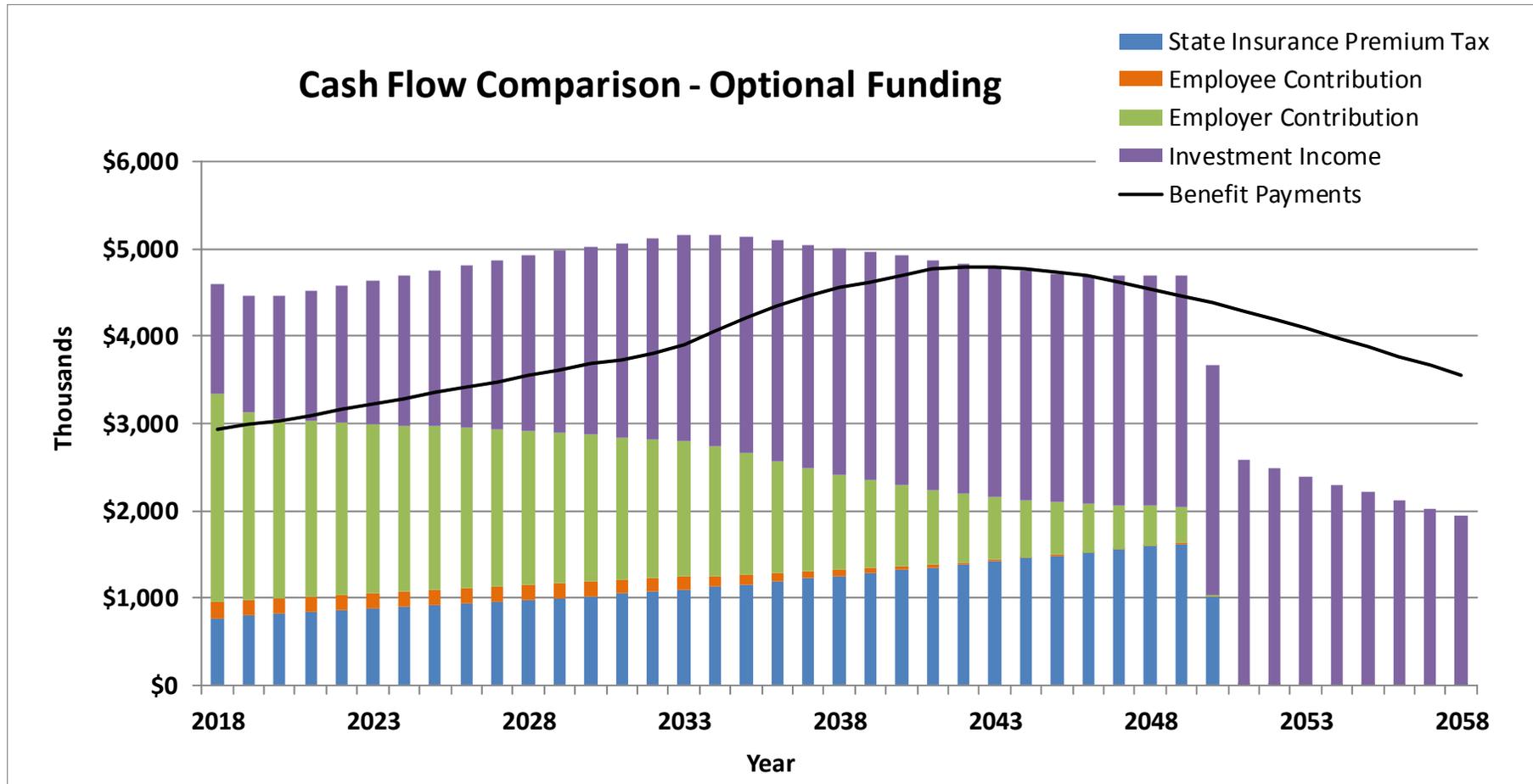
Actuarial Projections, Graph 1



Actuarial Projections, Graph 2



Actuarial Projections, Graph 3



SECTION III

ACTUARIALLY DETERMINED CONTRIBUTION FOR GASB STATEMENT NOS. 67 AND 68 REPORTING

Actuarially Determined Contribution for GASB Statement Nos. 67 and 68 Reporting Schedule C: Funding Progress and Employer Contributions

Valuation Date	July 1, 2016	July 1, 2017
Valuation Interest Rate	5.50%	5.50%
Cost-of-Living Adjustment	2.75%	2.75%
Wage Inflation	3.75%	3.75%
Actuarial Value of Assets	Market	Market
Actuarial Cost Method	Entry Age Normal	Entry Age Normal
Remaining Amortization Period ^a	24 Years, Level % of Pay	23 Years, Level % of Pay
Schedule of Funding Progress		
Actuarial Valuation Date	July 1, 2016	July 1, 2017
1. Market Value of Assets	\$19,834,631	\$22,535,606
2. Actuarial Accrued Liability	\$55,264,372	\$55,506,409
3. Unfunded Actuarial Accrued Liability (2 - 1)	\$35,429,741	\$32,970,803
4. Funded Ratio (1/2)	36%	41%
5. Expected Payroll	\$2,754,033	\$2,505,036
6. UAAL as Percentage of Covered Payroll (3/5)	1,286%	1,316%
Schedule of Employer Contributions ^c		
	FYE 2017	FYE 2018
1. Actuarially Determined Contribution		
(a) Employer Normal Cost	\$872,614	\$799,284
(b) Amortization of Unfunded Actuarial Accrued Liability	\$1,777,418	\$1,712,536
(c) Actuarially Determined Contribution (ADC) (a + b)	\$2,650,032	\$2,511,820
2. Employer Contribution ^b	\$2,330,579	\$2,383,505
3. Premium Tax Allocation	\$767,103	\$764,859
4. Percentage of ADC Contributed [(2 + 3)/1(c)]	117%	125%

^a Suggested amortization policy to comply with GASB Statement Nos. 67 and 68 Standards.

^b Estimated employer contribution for fiscal year ended June 30, 2018.

^c Satisfies the Actuarially Determined Contribution as defined by GASB Statement Nos. 67 and 68.

SECTION IV

ACTUARIAL VALUATION DATA AS OF JULY 1, 2017

Actuarial Valuation Data as of July 1, 2017

Schedule D: Reconciliation of Assets

Plan Year Ending	June 30, 2016	June 30, 2017
A. Market Value of Assets Beginning of Year	\$19,910,004	\$19,834,631
Adjustment to Market Value of Assets at Beginning of Year	\$16,803	\$0
Market Value of Assets Beginning of Year	\$19,926,807	\$19,834,631
1. Revenue During Fiscal Year		
(a) Employee Contribution	\$225,578	\$213,131
(b) Governmental Contribution		
(i) From Local Government	\$1,885,979	\$2,330,579
(ii) From State Government	\$880,044	\$767,103
(iii) Reallocation from State Government	\$0	\$0
(iv) Total	\$2,766,023	\$3,097,682
(c) Earnings on Investments		
(i) Net Appreciation/(Depreciation)	(\$881,671)	\$1,638,035
(ii) Bond Interest	\$220,943	\$213,978
(iii) Dividends	\$186,468	\$215,922
(iv) Net Realized Gain (Loss) on Sale/Exchange	\$253,609	\$215,554
(v) Other	\$0	\$0
(vi) Less Investment Expense	(\$69,423)	(\$62,177)
(vii) Total	(\$290,074)	\$2,221,312
(d) Other Revenue	\$817	\$2,339
(e) Receivable Investment Income/(Expense)	\$0	\$0
(f) Receivable Contribution ^a		
(i) From Employee Contributions	\$0	\$0
(ii) From Local Government	\$0	\$0
(iii) From State Government	\$0	\$0
(iv) Total	\$0	\$0
(g) Total Revenue (sum of (a) through (f))	\$2,702,344	\$5,534,464
2. Expenditures During Fiscal Year		
(a) Benefits Paid	\$2,720,377	\$2,716,844
(b) Withdrawals	\$73,850	\$103,557
(c) Administrative Expenses	\$293	\$13,088
(d) Payable Benefits and Withdrawals	\$0	\$0
(e) Payable Administrative Expenses	\$0	\$0
(f) Total Expenditures (sum of (a) through (e))	\$2,794,520	\$2,833,489
B. Market Value of Assets End of Year		
[A + 1(g) - 2(f)]	\$19,834,631	\$22,535,606
C. Approximate Return on Assets	(1.45)%	11.01%

^a Receivable contributions for each respective plan year ending.

Actuarial Valuation Data as of July 1, 2017

Schedule E: Assets Held by Category

Plan Year Ending	June 30, 2016		June 30, 2017	
1. Cash and Short-term Investments	\$740,307	4%	\$76,710	0%
2. Government Securities				
(a) US Treasury Bills, Notes and Bonds	\$3,862,313		\$784,690	
(b) US State and Local Governmental Debt Securities	\$0		\$3,270,925	
(c) Foreign Governmental Debt Securities	\$0		\$0	
(d) Other	\$0		\$0	
(e) Total Government Securities (sum of (a) through (d))	\$3,862,313	20%	\$4,055,615	18%
3. Corporate Fixed Income				
(a) US Bonds	\$3,675,158		\$3,904,377	
(b) US Mortgage or other Asset Backed Securities	\$382,527		\$782,963	
(c) US Mutual Fund Shares (Bonds)	\$0		\$0	
(d) US Exchange Traded Funds (Bonds)	\$0		\$0	
(e) International Bonds	\$0		\$0	
(f) International Mutual Fund Shares (Bonds)	\$0		\$0	
(g) International Exchange Traded Funds (Bonds)	\$0		\$0	
(h) Total Corporate Fixed Income (sum of (a) through (g))	\$4,057,685	20%	\$4,687,340	21%
4. Corporate Equity				
(a) US Equity	\$10,713,326		\$12,806,941	
(b) US Mutual Fund Shares (Equity)	\$0		\$0	
(c) US Exchange Traded Funds (Equity)	\$0		\$0	
(d) International Equity	\$0		\$0	
(e) International Mutual Fund Shares (Equity)	\$0		\$0	
(f) International Exchange Traded Funds (Equity)	\$0		\$0	
(g) Total Corporate Equity (sum of (a) through (f))	\$10,713,326	54%	\$12,806,941	57%
5. Alternative Investments				
(a) Real Estate Investment Trust	\$0		\$0	
(b) Private Equity Fund	\$0		\$0	
(c) Hedge Funds	\$0		\$0	
(d) Other Alternative Investments	\$0		\$0	
(e) Total Alternative Investments (sum of (a) through (d))	\$0	0%	\$0	0%
6. Other	\$461,000	2%	\$909,000	4%
7. Receivable Contributions	\$0			
(a) From Employee Contributions	\$0		\$0	
(b) From Local Government	\$0		\$0	
(c) From State Government	\$0		\$0	
(d) Total Receivable Contributions (sum of (a) through (c))	\$0	0%	\$0	0%
8. Accruals				
(a) Receivable (other than State and Local Contributions)	\$0		\$0	
(b) Less Payable	\$0		\$0	
(c) Total	\$0	0%	\$0	0%
Market Value of Assets End of Year	\$19,834,631		\$22,535,606	
[sum of (1) through (8)]				

Actuarial Valuation Data as of July 1, 2017

Schedule F: Summary of Participant Activity

	Actives	Retirees	Disabled	Deferred Vested	Spouses and Beneficiaries	Totals
Total Participants July 1, 2016:	58	72	7	0	28	165
New Actives:						0
Returned to Actives Status:						0
Data Corrections/Other Changes:						0
Vested Terminations:	(1)			1		0
Non-Vested Terminations:	(4)					(4)
Disabled:						0
Retirements:	(3)	3				0
Deaths with Beneficiary:		(3)			3	0
Deaths w/o Beneficiary:		(2)			(1)	(3)
Expired Annuity or Stop Payment:						0
Net Changes:	(8)	(2)	0	1	2	(7)
Total Participants June 30, 2017:	50	70	7	1	30	158

Actuarial Valuation Data as of July 1, 2017

Schedule G: Distribution of Active Employees by Age and Length of Service

Attained Age	Years of Service to Valuation Date									Totals	Valuation Payroll ^a
	Less than 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 35		
Under 20											\$ 0
20-24											\$ 0
25-29			1	5						6	\$ 316,537
30-34			3	8	6					17	\$ 814,573
35-39				1	4	1				6	\$ 311,303
40-44				2		5				7	\$ 355,712
45-49					1	4	3			8	\$ 440,310
50-54						1	1	1		3	\$ 158,813
55-59							1			1	\$ 61,552
60-64								1	1	2	\$ 146,853
65-69											\$ 0
Over 70											\$ 0
Totals	0	4	16	11	11	5	2	0	1	50	\$ 2,605,653
Averages _____											
Age: 39.1 years											
Service: 13.3 years											
Annual Pay: \$52,113 ^a											

^a Based on payroll at beginning of plan year.

Actuarial Valuation Data as of July 1, 2017

Schedule H: Participants Summary

Active Participants	July 1, 2016	July 1, 2017
Number of Actives	58	50
Total Annual Pay	\$2,854,228	\$2,605,653
Average Age	38.8	39.1
Average Service	12.8	13.3

Inactive Participants	July 1, 2016		July 1, 2017 ^a	
Type	No.	Annual Benefit	No.	Annual Benefit
Retirees	72	\$2,159,498	70	\$2,178,400
Survivors	28	\$384,103	30	\$418,241
Disabled Members	7	\$154,139	7	\$156,034
Deferred Vested Members	0	\$0	1	\$32,322

^aData provided includes 3 non-vested members with accumulated contributions balances of \$62,721.

SECTION V

ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions and Methods Used in the Valuation as of July 1, 2017

Discount Rate

The following table outlines the factors used to determine the discount rate:

Funded Ratio as of Valuation Date ¹	Liquidity Ratio ²	Equity Exposure ³	Projected Funded Ratio after 15 Years ¹	Discount Rate
60% or more	10	50% or more	70% or more	6.5%
40% or more	8	40% or more	60% or more	6.0%
30% or more	6	30% or more	50% or more	5.5%
15% or more	4	n/a	40% or more	5.0%
Less than 15%	n/a	n/a	15% or more	4.5%
Less than 15%	n/a	n/a	Less than 15%	4.0%

¹Funded ratios based on a 6.0% investment return assumption for plans using an actuarially sound policy (standard or optional) and a 5.5% investment return assumption for other plans (alternative or conservation).

²Liquidity ratio equals assets as of the actuarial valuation date divided by expected benefit payments for the year.

³Based on investment policy.

As of June 30, 2017	
Assets	\$22,535,606
Liabilities using a 6.00% Discount Rate	\$52,066,861
Funded Ratio	43%
Expected Benefit Payments	\$2,928,220
Liquidity Ratio	7.70
Equity Exposure	57%
Projected Funded Ratio after 15 years	66%

Discount Rate

5.50%

Actuarial Assumptions and Methods Used in the Valuation as of July 1, 2017 (Continued)

The premium tax allocation is projected using the following methodology:

- (1) The Base Allocation for all Pension and Relief Funds is a fixed amount equal to \$8,709,689 in all future years. This amount is allocated to each individual Pension and Relief Fund in proportion to the number of eligible members, which includes active members covered in either the Pension and Relief Fund or the statewide plan, Municipal Police Officers and Firefighters Retirement System (“MPFRS”).
- (2) The Excess Allocation is equal to the excess of the current year premium tax assigned to all Pension and Relief Funds over the total Base Allocation. This amount is allocated to each individual Pension and Relief Fund in proportion to the number of eligible active and retired members covered in either the Pension and Relief Fund or the MPFRS.
- (3) We have assumed all Pension and Relief Funds will make the minimum statutory contribution requirement and will receive 100% of both the Base Allocation and the Excess Allocation assigned to the individual plan. Consequently, the projections do not include any reallocation of Expired Premium Tax Allocation for plan years beginning on and after July 1, 2019.
- (4) The total available premium tax allocation, net of expenses, as of September 1, 2018, includes a Base Allocation of \$8,709,689, an Excess Allocation of \$9,570,473, and an Expired Premium Tax Allocation of \$237,031.
- (5) For the plan year ending June 30, 2018, all Pension and Relief Funds reported a total of 1,717 eligible active members and 2,165 eligible retired members. The City of Wheeling Policemen’s Pension and Relief Fund reported 68 eligible active members and 109 eligible retired members, based on the average number of plan participants for the 12-month period ending June 30, 2018. The Fund is eligible to receive a premium tax allocation of \$791,415 for the fiscal year ending June 30, 2019.
- (6) The total premium tax allocation was assumed to increase by 2.75% in calendar years ending on and after 2019.

Actuarial Assumptions and Methods Used in the Valuation as of July 1, 2017 (Continued)

General Inflation	2.75%																		
Expected Salary Increase	General Inflation: 2.75% <i>plus</i>																		
Service-based Increase:	Wage Inflation Increment: 1.00% <i>plus</i>																		
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><u>Years of Service</u></th> <th style="text-align: center;"><u>Increase</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">20.00%</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">6.50%</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">3.50%</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">2.75%</td> </tr> <tr> <td style="text-align: center;">5-9</td> <td style="text-align: center;">2.50%</td> </tr> <tr> <td style="text-align: center;">10-29</td> <td style="text-align: center;">2.00%</td> </tr> <tr> <td style="text-align: center;">30-34</td> <td style="text-align: center;">1.25%</td> </tr> <tr> <td style="text-align: center;">after 34 years of service</td> <td style="text-align: center;">0.00%</td> </tr> </tbody> </table>	<u>Years of Service</u>	<u>Increase</u>	1	20.00%	2	6.50%	3	3.50%	4	2.75%	5-9	2.50%	10-29	2.00%	30-34	1.25%	after 34 years of service	0.00%
<u>Years of Service</u>	<u>Increase</u>																		
1	20.00%																		
2	6.50%																		
3	3.50%																		
4	2.75%																		
5-9	2.50%																		
10-29	2.00%																		
30-34	1.25%																		
after 34 years of service	0.00%																		
Post-retirement COLA	2.75% on first \$15,000 of Annual Benefit and on the accumulated supplemental pension amounts for prior years. Assumed to be payable to all members receiving payments.																		
Increase in State Insurance Premium Tax Allocation	2.75% on and after year 1																		
Cost Method	Entry-Age-Normal, Level-Percentage-of-Pay																		
<p><i>Amortization Policies:</i></p> <p>Alternative Plans and former Alternative Plans that selected the Conservation Policy</p> <p>Standard Plans and former Standard Plans that selected the Optional Policy</p> <p>Former Alternative Plans that selected the Optional Policy</p>	<p>For GASB 67/68 Accounting: 30 – Year Closed Level-Percentage-of-Pay Amortization (from July 1, 2010 – 23 years remaining as of July 1, 2017).</p> <p>For funding and GASB 67/68 Accounting: 40-Year Closed Level-Dollar Amortization (from July 1, 1991 – 14 years remaining as of July 1, 2017)</p> <p>For funding: 40-Year Closed Level-Dollar Amortization (from January 1, 2010 – 32.5 years remaining as of July 1, 2017). For GASB 67/68 Accounting: 30-Year Closed Level-Percentage-of-Pay Amortization (from July 1, 2010 – 23 years remaining as of July 1, 2017)</p>																		

Actuarial Assumptions and Methods Used in the Valuation as of July 1, 2017 (Continued)

Asset Method	Market Value										
Turnover	<p>Sample Rates –</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Rates</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">9%</td> </tr> <tr> <td style="text-align: center;">35</td> <td style="text-align: center;">4%</td> </tr> <tr> <td style="text-align: center;">45</td> <td style="text-align: center;">2%</td> </tr> <tr> <td style="text-align: center;">50</td> <td style="text-align: center;">0%</td> </tr> </tbody> </table>	<u>Age</u>	<u>Rates</u>	25	9%	35	4%	45	2%	50	0%
<u>Age</u>	<u>Rates</u>										
25	9%										
35	4%										
45	2%										
50	0%										
Retirement	<table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Rates^a</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">50</td> <td style="text-align: center;">45%</td> </tr> <tr> <td style="text-align: center;">51-55</td> <td style="text-align: center;">30%</td> </tr> <tr> <td style="text-align: center;">56-59</td> <td style="text-align: center;">35%</td> </tr> <tr> <td style="text-align: center;">60</td> <td style="text-align: center;">100%</td> </tr> </tbody> </table> <p>^aTerminated vested participants are assumed to retire at age 50.</p>	<u>Age</u>	<u>Rates^a</u>	50	45%	51-55	30%	56-59	35%	60	100%
<u>Age</u>	<u>Rates^a</u>										
50	45%										
51-55	30%										
56-59	35%										
60	100%										
Mortality	<p>Active: RP-2014 Blue Collar Healthy Employee^b</p> <p>Post-Retirement: RP-2014 Blue Collar Healthy Annuitant</p> <p>Disabled: RP-2014 Blue Collar Healthy Annuitant set forward four years</p> <p>Tables above incorporate generational mortality improvement using MP-2014 2-dimensional mortality improvement scales</p> <p>^bAssumes 10% of deaths are duty-related and 90% are non-duty related.</p>										
Disability	<p>Sample Rates –</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>Age</u></th> <th style="text-align: center;"><u>Rates^c</u></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">0.22%</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">0.50%</td> </tr> <tr> <td style="text-align: center;">50</td> <td style="text-align: center;">0.79%</td> </tr> </tbody> </table> <p>^cAssumes 60% duty related and 40% non-duty related. Also assumes 10% of non-duty disabled members receive a 20% reduction in benefits due to gainful employment.</p>	<u>Age</u>	<u>Rates^c</u>	30	0.22%	40	0.50%	50	0.79%		
<u>Age</u>	<u>Rates^c</u>										
30	0.22%										
40	0.50%										
50	0.79%										
Percent Married	90%										
Spouse Age	Females 3 years younger than males										

Actuarial Assumptions and Methods Used in the Valuation as of July 1, 2017 (Continued)

Administrative Expenses	Plan year end June 30, 2018, expense based on plan year end June 30, 2017 expense increased by general inflation assumption. Future expenses assumed to increase by the general inflation assumption.
Refunds Paid	Assumes non-vested inactive members as of July 1, 2017, with accumulated member contribution balances will receive a refund of their contributions during plan year end June 30, 2018.
Data Adjustments and Assumptions	None
Child Beneficiaries	Future survivor widow benefits are loaded by 12% to estimate impact of benefits provided to survivor children. The load assumes 90% of members are married with two children at time of death, and benefits for each child are paid for approximately 8 years.
General Projection Methodology	Closed group projections assume: <ul style="list-style-type: none"> (i) Salaries will increase and members will decrement as specified in the actuarial assumption section. (ii) Assets grow at the assumed rate of return. (iii) The sponsor makes the statutory required contribution on a timely bases. (iv) Non-vested members with accumulated plan balances as of July 1, 2017, will receive a refund during plan year end June 30, 2018.
Decrement Timing	Mid-Year

SECTION VI

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Summary of Principal Plan Provisions

Actuarial Valuation as of July 1, 2017

Employee Eligibility — All compensated employees of the Police Department hired before December 1, 2014 are eligible to participate in the City of Wheeling Policemen’s Pension and Relief Fund.

Average Annual Compensation — The average of any three twelve-consecutive-month periods of employment which produces the highest average annual compensation.

Each twelve-consecutive-month annual compensation is limited to 120% of the *Average Adjusted Salary* received by the member in the two consecutive twelve-consecutive-month periods immediately preceding the twelve-consecutive-month period used in determining benefits.

The *Average Adjusted Salary* is base salary (exclusive of all overtime and other pay) of the year used in determining benefits multiplied by the ratio of total salary (includes all overtime and other pay) to base salary from the respective preceding twelve-consecutive-month period.

Determining Years of Service Credit (Credited Service) — The number of years that the member has contributed to the employees retirement and benefit fund.

Prior Military Service — A city may provide that members who have been honorably discharged from the military shall receive up to two years prior service credit for military service prior to their employment with the city.

Current Military Service — Any current member who has been on qualified military service in the armed forces of the United States with an honorable discharge may, within six months from his or her date of discharge, be given credit for continuous service in the paid police or fire department.

Any member who has served in active duty with the armed forces of the United States, whether prior to or subsequent to becoming a member of a paid police or fire department, shall receive one additional percent for each year so served in active military duty, up to a maximum of four additional percent.

Absence from the service because of sickness or injury for a period of two years or less shall not be construed as time out of service.

Contributions — Participating employees contribute 7.0% of compensation. Participating employees hired on or after January 1, 2010 contribute 9.5% of pay. The municipality has elected to contribute the minimum employer contribution under the Optional funding policy.

Normal Retirement — Members are eligible at the earlier of age 50 with 20 years of credited service or age 65.

Benefit Commencement — Annual retirement pension benefits commence upon retirement or upon the member attaining age fifty, whichever is later, payable in twelve monthly installments.

Summary of Principal Plan Provisions

Actuarial Valuation as of July 1, 2017 (Continued)

Accrued Benefit — The annual retirement benefit equals 60% of average annual compensation, not less than \$6,000, plus an additional percentage of average annual compensation for service over 20 years equal to 2% for each year of service between 20 and 25 and 1% for each year of service between 25 and 30 years. Employees serving in the military are eligible for an additional 1% of average annual compensation for each year of military service up to four years. The maximum benefit is limited to 75% of average annual compensation. Benefits continue for life.

Disability Retirement — Members are eligible after earning five years of service. No service requirement if disability is service related.

The monthly disability benefit equals the greater of 60% of monthly salary at disability or \$500. Employees serving in the military are eligible for an additional benefit of 1% of monthly salary at disability for each year of military service up to four years. Disability benefits, when aggregated with monthly state workers compensation benefits, shall not exceed 100% of the member's monthly compensation at the time of disability. Benefits continue for life or until recovery.

Death Benefits — Members are eligible after earning five years of service. No service requirement if death is service related. Retirees and terminated vested participants are also eligible.

The benefit is equal to 60% of the participant's benefit, but not less than \$300 per month, payable to the spouse until death or remarriage. Other dependents (children, parents, brothers and sisters) are also eligible for death benefits. To each dependent child, twenty percent of the participant's benefit until the child attains 18 or marries; to each dependent orphaned child, 25 percent of the participant's benefit until the child attains 18 or marries; to each dependent parent, 10 percent of the participant's benefit for life, and to each dependent brother or sister, the sum of 50 dollars per month (but a total not to exceed \$100 per month) until such individual attains the age of 18 years or marries.

In no case shall the payments to the surviving spouse and children be reduced below 65 percent of the total amount paid to all dependents.

Supplemental Pension Benefits — All retirees, surviving beneficiaries and disability pensioners are eligible for automatic cost-of-living benefits commencing on the first day of July following two years of retirement. The benefits equal the percentage increase in the Consumer Price Index, limited to 4% (2% for some disability retirees), multiplied by the sum of the allowable amount which is the first \$15,000 of the total annual benefits paid and the accumulated supplemental pension amounts for prior years.

Termination Benefits — Any member who terminates employment prior to retirement will be entitled to a refund of contributions without interest.

Refunds — Any member who terminates from their department without receiving a retirement pension shall be refunded all deductions made from his salary, without interest.